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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,298	03/24/2004	Taek-Kyun Choi	45524	3832

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EXAMINER

WENDELL, ANDREW

ART UNIT PAPER NUMBER

2618

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/807,298	<b>Applicant(s)</b> CHOI, TAEK-KYUN	
	<b>Examiner</b> Andrew Wendell	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 6-14 and 18-24 is/are allowed.
- 6) ☒ Claim(s) 15-17 is/are rejected.
- 7) ☐ Claim(s) 1-5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Republic of Korea on 4/22/2003. It is noted, however, that applicant has not filed a certified copy of the 2003-25429 application as required by 35 U.S.C. 119(b).

### ***Claim Objections***

2. Claim 1-5 is objected to because of the following informalities: "N" of line 6 and "M" of line 8 in claim 1 are not defined. Appropriate correction is required. Note, multiple, plurality, or similar wording to substitute N and M would overcome objection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (US Pat# 6,993,357).

Regarding claim 15, Ito's mobile radio communication terminal teaches separating a received signal into a corresponding communication service (Fig. 4); separating the communication service into a call signal 5b (Fig. 5) and a TV signal 5d

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(Fig. 5), and performing a calling function 5b (Fig. 5) or a TV reception function 5d (Fig. 5).

Regarding claim 16, Ito teaches enabling watching of TV on the multimode mobile phone when a phone call is not in session 5d (Fig. 5).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US Pat# 6,993,357) in view of Irube et al. (US Pat# 6,377,818).

Regarding claim 17, Ito's mobile radio communication terminal teaches the limitations in claim 15. Ito fails to teach a calling function and TV reception being simultaneously performed.

Irube's communication terminal teaches wherein the calling function and the TV reception function (video) are simultaneously performed by receiving the call signal and the TV signal (Col. 1 lines 25-56).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a calling function and TV reception being simultaneously performed as taught by Irube into Ito's mobile radio communication terminal in order to have portability and storability do not deteriorate (Col. 1 lines 20-24).

***Allowable Subject Matter***

7. Claims 1-14 and 18-24 are allowable over the cited prior art.

Regarding independent claim 1, Ito et al. (US Pat# 6,993,357) teaches performing a TV reception function 5d (Fig. 5) and a calling function in a multimode mobile phone supporting two or more communication services (Fig. 4).

The prior art of record fails to teach an apparatus for simultaneously performing a TV reception function and a calling function in a multimode mobile phone supporting two or more communication services, comprising a first Radio Frequency (RF) switch for separating a received signal into N communication services; M diplexers associated with the communication services, for separating a signal received from the first RF switch into a call signal and a TV signal; a second RF switch for applying the TV signal received from the diplexers to a TV tuner; and a controller for controlling an overall operation of the multimode mobile phone and controlling the first RF switch and the second RF switch according to the received signal.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 1-5. Note, claims 1-5 are objected to for minor informalities.

Regarding independent claim 6, in Ito et al. (US Pat# 6,993,357) in view of Pau (US Pat# 6,754,508). Ito teaches performing a TV reception function 5d (Fig. 5) and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access service (Fig. 4). Pau teaches a tri-mode mobile phone capable of supporting a Personal Communications Service (Fig. 5).

The prior art of record fails to teach an apparatus for simultaneously performing a TV reception function and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access (CDMA) service, a Personal Communications Service (PCS) service and a Global Positioning System (GPS) service, the apparatus comprising a first Radio Frequency (RF) switch for switching a received signal to a first diplexer, a second diplexer or a GPS RF switch; the first diplexer for separating a signal received via the first RF switch into a PCS signal and a TV signal; the second diplexer for separating a signal received via the first RF switch into a CDMA signal and a TV signal; and a second RF switch for switching the TV signal from the first diplexer and the second diplexer to a TV tuner.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 6-14.

Regarding independent claim 18, in Ito et al. (US Pat# 6,993,357) in view of Pau (US Pat# 6,754,508). Ito teaches performing a TV reception function 5d (Fig. 5) and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access service (Fig. 4). Pau teaches a tri-mode mobile phone capable of supporting a Personal Communications Service (Fig. 5).

The prior art of record fails to teach a method for simultaneously performing a TV reception function and a calling function in a tri-mode mobile phone including a first Radio Frequency (RF) switch for switching a received signal to a first diplexer, a second diplexer or a GPS RF switch, the first diplexer for separating a signal received from the first RF switch into a PCS signal and a TV signal, the second diplexer for

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separating a signal received from the first RF switch into a CDMA signal and a TV signal, and a second RF switch for switching the TV signal from the first and second duplexers to a TV tuner, the tri-mode mobile phone being capable of supporting a Code Division Multiple Access (CDMA) service, a Personal Communications Service (PCS) service and a Global Positioning System (GPS) service, the method comprising the steps of receiving a signal in a PCS mode of the tri-mode mobile phone; if the received signal is a PCS signal, applying the PCS signal to a PCS duplexer via the first duplexer to perform a calling function; and if the received signal is a TV signal, applying the TV signal to the TV tuner via the first duplexer and the second RF switch to perform a TV reception function.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 18-20.

Regarding independent claim 21, in Ito et al. (US Pat# 6,993,357) in view of Pau (US Pat# 6,754,508). Ito teaches performing a TV reception function 5d (Fig. 5) and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access service (Fig. 4). Pau teaches a tri-mode mobile phone capable of supporting a Personal Communications Service (Fig. 5).

The prior art of record fails to teach a method for simultaneously performing a TV reception function and a calling function in a tri-mode mobile phone including a first Radio Frequency (RF) switch for switching a received signal to a first duplexer, a second duplexer or a GPS RF switch, the first duplexer for separating a signal received from the first RF switch into a PCS signal and a TV signal, the second duplexer for

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separating a signal received from the first RF switch into a CDMA signal and a TV signal, and a second RF switch for switching the TV signal from the first and second duplexers to a TV tuner, the tri-mode mobile phone being capable of supporting a Code Division Multiple Access (CDMA) service, a Personal Communications Service (PCS) service and a Global Positioning System (GPS) service, the method comprising the steps of receiving a signal in a CDMA mode of the tri-mode mobile phone; if the received signal is a CDMA signal, applying the CDMA signal to a CDMA duplexer via the second duplexer to perform a calling function; and if the received signal is a TV signal, applying the TV signal to the TV tuner via the second duplexer and the second RF switch to perform a TV reception function.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 21-24.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Baran discloses a multiple protocol personal communications network system. Harada discloses a multi-mode radio transmission system. Leclercq discloses clock management system. Miao discloses a dual-mode ultra wideband and wireless local area network communications. Fujise discloses a multimode service radio communication method and apparatus.

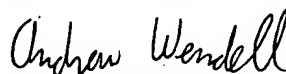
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.



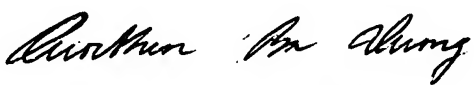
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Andrew Wendell  
Examiner  
Art Unit 2618

9/28/2006

 10/16/06  
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